

The last types of workflow within the system is the specification of the flow of tasks within each service. This defines the atomic level of workflow in the system. The graph of tasks within a service are arranged much like the service workflow within a process.

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Unlike services, tasks do not have an expected path or duration. They are not tracked against the schedule until the service is completed or cancelled.

10 Instead, the routing between tasks is to provide interactive editing of business document content in a guided sequence. The guided sequence steps the end user through the business document data, displaying the appropriate contextual information and providing appropriate forms for updating the data.

15 The service's workflow provides sets of tasks to be made available for activation at any one time, depending upon the current state of the service. The guidance ensures that only those sets of tasks relevant to the progression of tasks within a service are available at any one time. Although the inactive tasks may be visible, they are not activated for input until the appropriate place in the workflow.

20 Each task exclusively belongs to one set. The current set of activated tasks provides the service state at any one time. Determining the next set of tasks to activate in the flow may use conditional information from the set of tasks last activated. In addition, the validation of end user input from the current set of tasks may not allow the current set to advance to the next if invalid data has been entered. This validation can be
25 performed and enforced on the client and/or server end.

The service state can be elected to be undone by the end user to a former service state. The history of service states activated by the end user is kept in a sequence, and an un-do action rolls-back the current state to a former state. In addition, the service can
30 be atomically cancelled at any time. Only the service states that flow into the service end point allow the service to become complete.

While a service is activated, its action item indicates to the activator end user that it can be resumed for processing.

Upon completion of a service, the sequence of service states are added as detail to the service audit trail within the process thread.

A summary of the foregoing material on plans will now be set forth:

- Work flow relates to the transformation of business document data.
- The system specifies workflow at different, specialized levels. Despite this layering, all workflow is consistently recorded for audit.
- A project can be started although its final definition is still incomplete.
- Planning of all resources and time is required at process creation. Re-planning of any of these can occur at any time subsequently.
- Project workflow is across process boundaries. Each process can use the present implementation comprising a number of pre-defined services, or work can be planned to flow through the process interface of external systems.
- As processes are created from the project start state, a process thread of the live processes is begun as an audit trail to follow all the live processes passed through until the project end or cancellation.
- The process templates are linked into a workflow graph. This same idiom of workflow graph linkage is carried into the service and task levels.
- The expected path through the services for each project template is base-lined as a straight line through the graph of services. The expected path can be modified away from the base-line at any time.
- Action items per end user overlay the set of all services in a project to present the planning status of each service in a calendar view.
- Only people with a role that is defined as part of the service entry criteria can activate a service. Once activated, the service is unavailable to others until completed or cancelled.

- Task work flow progresses the end user through a sequence of task set steps.

Enterprise Objects

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The present invention manipulates these entities:

- Organizations
- People
- Subscribers
- 10 ▪ Customers
- Addresses
- Contact Info
- Locale

15 Team Roles

The present invention manipulates these entities:

- Permissions
- Privacy
- 20 ▪ Assignment
- Teams
- Delegation
- Project Manager
- Team Manager
- 25 ▪ Routing by Role

Network Objects

The present invention manipulates these entities:

- 30 ▪ Browsers
- Adaptors – data, process
- Devices